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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/850,203	05/08/2001	Yuji Saito	101213-00009	9728

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/850,203

Applicant(s)

SAITO ET AL.

Examiner

Tracy Dove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/1/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

This Office Action is in response to the communication filed on 10/1/03. Applicant's arguments have been considered, but are not persuasive. Claims 1-5 remain rejected in view of the prior art. Claims 6-10 are withdrawn as being directed to a non-elected invention. This Action is made **FINAL**.

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-5, in Paper No. 6 is acknowledged.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 10/1/03 has been considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by, and alternatively unpatentable over, Lawless, US 6,372,375.

Lawless teaches a honeycomb ceramic fuel cell (tubular) comprising an oxidant supply passage, a cathode electrode disposed in the oxidant supply passage, a fuel supply passage, an anode electrode disposed in the fuel supply passage, and a stabilized bismuth oxide oxygen ion conductive ceramic (electrolyte) interposed between the cathode electrode and the anode electrode (see abstract). Solid electrolyte fuel cells include a solid electrolyte that is oxygen-ion conductive. A porous cathode electrode and a porous anode electrode are formed on opposite sides of the electrolyte (electrodes interposing electrolyte). See col. 1, lines 20-23.

Regarding claim 4, the ceramic fuel cell comprises an extruded multi-cellular ceramic structure, which is also referred to as a honeycomb ceramic body 20 (electrolyte) (col. 4, lines 26-32).

Regarding claim 5, the oxygen ion conductive ceramic may be arranged to define a plurality of oxidant supply passages and a plurality of fuel supply passages. The oxidant supply passages may be oriented substantially parallel to the fuel supply passages and selected ones of the oxidant supply passages are preferably defined so as to be adjacent to corresponding ones of the fuel supply passages. More specifically, the oxygen ion conductive ceramic may be arranged to define a plurality of substantially parallel longitudinal channels and selected ones of the longitudinal channels may define the oxidant supply passages and remaining ones of the longitudinal channels define the fuel supply passages (col. 2, lines 49-60). The cathode electrode

is disposed in the oxidant supply passages and the anode electrode is disposed in the fuel supply passages (col. 2, lines 8-15).

Thus the claims are anticipated.

The claims are alternatively unpatentable. Lawless does not teach the gas diffusion electrodes and/or tubular fuel cell are formed by stacking a plurality of layers of material therefor (claims 1-3). However, the courts have ruled that product-by-process limitations, in the absence of unexpected results, are obvious. Therefore, whether the electrodes and/or tubular fuel cell are formed by stacking a plurality of layers of material therefor or by forming as a single layer (i.e., extrusion), the electrodes and/or tubular fuel cell, as an end result, appear to be identical. In re Fessman, 489 F2d 742; 180 USPQ 324 (CCPA 1974). In re Marosi, 218 USPQ 289 (Fed. Cir. 1983). The burden is upon the applicant to come forward with evidence establishing an unobvious difference between the fuel cell of the instant invention and the fuel cell of Lawless.

Note the silver overlay and zirconia coating layers disclosed by Lawless are not part of the gas diffusion electrodes, but are interposed between the electrolyte and respective electrode (see abstract).

Response to Arguments

Applicant's arguments filed 10/1/03 have been fully considered but they are not persuasive. The objections to the specification have been withdrawn.

The rejection of claims 1-5 under 35 U.S.C. 102(b) as being anticipated by Herceg, US 4,666,798 has been withdrawn. Herceg does not teach or suggest the anode and the cathode electrodes extend continuously along their respective gas channels.

The rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Primdahl, US 5,085,950 has been withdrawn. Primdahl does not teach or suggest the anode and the cathode electrodes extend continuously along their respective gas channels.

The rejection of claims 1-5 under 35 U.S.C. 102(e)/103(a) as being anticipated by, and alternatively unpatentable over, Lawless, US 6,372,375 is maintained. Applicant argues Lawless does not disclose or suggest forming the electrodes and/or tubular casing by stacking a plurality of material therefor. However, when a reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process a 35 U.S.C. 102/35 U.S.C. 103 rejection may be applied. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113. Once a product appearing to be substantially identical is found and a 35 U.S.C. 102 /103 rejection made, the burden shifts to the applicant to show an unobvious difference. Applicant has not provided evidence of an unobvious difference between the claimed fuel cell and the fuel cell of the prior art.

The use of a 35 U.S.C. 102/103 rejection for product-by-process claims has been approved by the courts. The courts have stated that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535,

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 27, 2004


Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700